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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

Complete if Known

Application Number 09/644,668
Filing Date August 24, 2000
First Named Inventor Korman, Alan J.
Group Art Unit 1682 LC44
Examiner Name Unassigned
Attorney Docket Number 014643-010510US

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
JMR	1	6,162,963		Kucheralapati et al.	12-19-2000	
	2	6,150,584		Kucheralapati et al.	11-21-2000	
	3	6,114,598		Kucheralapati et al.	09-05-2000	
	4	6,075,181		Kucheralapati et al.	06-13-2000	
	5	6,051,227		Allison et al.	04-18-2000	
	6	5,977,318		Linsley et al.	11-02-1999	
	7	5,968,510		Linsley et al.	10-19-1999	
	8	5,939,598		Kucheralapati et al.	11-17-1999	
	9	5,885,796		Lonberg et al.	03-23-1999	
	10	5,877,397		Lonberg et al.	03-02-1999	
	11	5,874,299		Lonberg et al.	02-23-1999	
	12	5,855,887		Allison et al.	01-05-1999	
	13	5,844,095		Linsley et al.	12-01-1998	
	14	5,814,318		Lonberg et al.	09-29-1998	
	15	5,811,097		Allison et al.	09-22-1998	
	16	5,789,650		Lonberg et al.	08-04-1998	
	17	5,770,429		Lonberg et al.	06-23-1998	
	18	5,770,197		Linsley et al.	06-23-1998	
	19	5,661,016		Lonberg et al.	08-26-1997	
	20	5,633,425		Lonberg et al.	05-27-1997	
	21	5,625,126		Lonberg et al.	04-29-1997	
	22	5,569,825		Lonberg et al.	10-29-1996	
JMR	23	5,545,806		Lonberg et al.	08-13-1996	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
JMR	24	PCT	WO00/37504		Hanson et al.	06-29-2000		
JMR	25	PCT	WO00/10383		Tomizuka et al.	03-02-2000		abstract only
JMR	26	PCT	WO98/42752		Kuchroo et al.	10-01-1998		

Examiner Signature

J. Korman

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 5

Complete if Known

Application Number	09/644,668
Filing Date	August 24, 2000
First Named Inventor	Korman, Alan J.
Group Art Unit	1632 1644
Examiner Name	Unassigned
Attorney Docket Number	014643-010510US

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FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	27	PCT	WO98/37757		Tomizuka et al.	09-03-1998		abstract only
	28	PCT	WO98/24893	A2	Jakobovits et al.	06-11-1998		
	29	PCT	WO98/24893	A3	Jakobovits et al.	06-11-1998		
	30	PCT	WO98/24884		Lonberg et al.	06-11-1998		
	31	PCT	WO97/07671		Tomizuka et al.	03-06-1997		abstract only
	32	PCT	WO96/34096		Kucherlapati et al.	10-31-1996		
	33	PCT	WO96/33735		Kucherlapati et al.	10-31-1996		
	34	PCT	WO95/33770		Gribben et al.	12-14-1995		
	35	PCT	WO94/25585		Lonberg et al.	11-10-1994		
	36	PCT	WO94/02602		Kucherlapati et al.	02-03-1994		
	37	PCT	WO93/12227		Lonberg et al.	06-24-1993		
	38	PCT	WO92/22645		Huang et al.	12-23-1992		
	39	PCT	WO92/03918		Lonberg et al.	03-19-1992		
DM	40	PCT	WO91/10741		Kucherlapati et al.	07-25-91		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 3 of 5

Complete if Known

Application Number	09/644,668
Filing Date	August 24, 2000
First Named Inventor	Korman, Alan J.
Group Art Unit	4632 1644
Examiner Name	Unassigned
Attorney Docket Number	0146432-010510US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SR	41	BLAIR et al. "Cutting edge: CTLA-4 ligation delivers a unique signal to resting human CD4 T cells that inhibits interleukin-2 secretion but allows Bcl-X _L induction," The J. of Immunology 22:1767 (1998)	
	42	BLUESTONE (1997) J. Immunol. 158:1989-1993	
	43	BRUNET et al., Immunol. Rev. 103-21-36 (1988)	
	44	BRUNET et al., Nature 328:267-270(1987)	
	45	CHAMBERS (1997) Curr. Opin. Immunol. 9:396-404	
	46	CHAMBERS et al., Immunity. 7:885-895(1997)	
	47	CLARK (1986) Human Immunol. 16:100-113	
	48	DAMLE et al., Proc. Natl. Acad. Sci. 78:5096-6001 (1981)	
	49	DARIAVACH et al., Eur. J. Immunol. 18:1901-1905 (1988)	
	50	ELSAS et al. "Combination immunotherapy of B16 melanoma using anti-cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) and granulocyte/macrophage colony-stimulating factor (GM-CSF)-producing vaccines induces rejection of subcutaneous and metastatic tumors accompanied by autoimmune depigmentation," J. Exp. Med. 190:355-366 (1999)	
	51	FISHWILD et al. "High-avidity human IgGk monoclonal antibodies from a novel strain of minilocus mice," Nature Biotechnology 14:845-851 (1996)	
	52	FREEDMAN (1987) J. Immunol. 138:3260-3267	
	53	FREEMAN (1989) J. Immunol. 143:2714-2722	
	54	GRIBBEN et al. "CTLA4 mediates antigen-specific apoptosis of human T cells," Proc. Natl. Acad. Sci. USA 92:811-815 (1995)	
SM	55	HURWITZ et al. "CTLA-4 blockade synergizes with tumor-derived granulocyte-macrophage colony-stimulating factor for treatment of an experimental mammary carcinoma," Proc. Natl. Acad. Sci. USA 95:10067-10071 (1998)	

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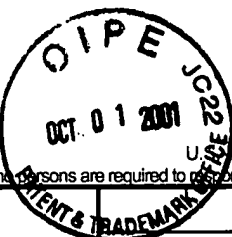
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Sheet 4 of 5

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Application Number	09/644,668
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First Named Inventor	Korman, Alan J.
Group Art Unit	1632 1644
Examiner Name	Unassigned
Attorney Docket Number	0146432-010510US

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

56	HURWITZ et al. "Immunotherapy of primary prostate cancer in a transgenic model using a combination of CTLA-4 blockade and tumor cell vaccine," Cancer Research 60:2444-2448 (2000)
57	KEARNEY (1995) J. Immunol. 155:1032-1036
58	KOHNO et al., Cell. Immunol. 131:1-10 (1990)
59	KRUMMEL et al. "CD28 and CTLA-4 have opposing effects on the response of T cells to stimulation," (1995) J. Exp. Med. 182:459-465
60	KRUMMEL et al. "CTLA-4 engagement inhibits IL-2 accumulation and cell cycle progression upon activation of resting T cells," J. Exp. Med 183:2533-2540 (1996)
61	KRUMMEL et al. "Superantigen responses and co-stimulation: CD28 and CTLA-4 have opposing effects on T cell expansion in vitro and in vivo," (1996) Int'l Immunol. 8:519-523
62	KWON et al. "Manipulation of T cell costimulatory and inhibitory signals for immunotherapy of prostate cancer," proc. Natl. Acad. Sci. USA 94:8099-8103 (1997)
63	Lafage-Pochitaloff et al., Immunogenetics 31:198-201 (1990)
64	LEACH et al. "Enhancement of antitumor immunity by CTLA-4 blockade," Science. 271:1734-1736 (1996)
65	LESSLAUER et al., Eur. J. Immunol. 16:1289-1296 (1986)
66	LINDSTEN et al., Science 244:339-343 (1989)
67	LINSLEY et al. "Coexpression and functional cooperation of CTLA-4 and CD28 on activated T lymphocytes," J Exp. Med. 176:1595-1604 (1992)
68	LINSLEY et al. "CTLA-4 is a second receptor for the B cell activation antigen B7," J. Exp. Med. 174:561-569 (1991)
69	LINSLEY et al., J. Exp. Med. 173:721-730 (1991)
70	LINSLEY et al., Proc. Natl. Acad. Sci. USA 87:5031-5035 (1990)
71	LONBERG et al. "Human antibodies from transgenic mice," International Review of Immunology 13:65-93 (1995)
72	LUHDER (1998) J Exp. Med. 187:427-432

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Sheet	5	of	5
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First Named Inventor	Korman, Alan J.
Group Art Unit	1632 1644
Examiner Name	Unassigned
Attorney Docket Number	0146432-010510US

CONFIDENTIAL - NOT FOR EYE-WITNESS DOCUMENTS		
73	MATSUI (1999) J. Immunol. 162:4328-4335	
74	MCCOY et al. "Protective immunity to nematode infection is induced by CTLA-4 blockade," J. Exp. Med 186:183-187 (1997)	
75	NEUBERGER "Generating high-avidity human Mabs in mice," Nature Biotechnology 14:826 (1996)	
76	THOMPSON (1997) Immunity 7:445-450	
77	THOMPSON et al., Proc. Natl. Acad. Sci 86:1333-1337 (1989)	
78	WALUNAS et al. "CTLA-4 ligation blocks CD28-dependant T cell activation," J. Exp. Med 183:2541-2550 (1996)	
79	WALUNAS, et al., "CTLA-4 can function as a negative regulator of T Cell activation," Immunity. 1:405-413 (1994)	
80	WU et al., J Exp. Med. 185:1327-1335 (1997)	
81	YANG et al. "Eradication of established tumors by a fully human monoclonal antibody to the epidermal growth factor receptor without concomitant chemotherapy," Cancer Research 59:1236-1243 (1999)	
82	YOKOCHI (1981) J. Immunol. 128:823	

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